Chapter 6. Biological Resources

Information presented in this chapter is based on reconnaissance field surveys, existing environmental studies including the Meadow Vista Community Plan EIR, vegetation maps, published databases, and contacts with the State Department of Fish and Game.

The Plan area is characterized by plant communities and wildlife typical of the foothill region, and is either rural or undeveloped and predominantly ponderosa pine forest and foothill woodland. Plant communities are depicted in Figure 6-1. The following plant communities and wildlife habitats characterize the Plan area:

valley oak woodland
wetlands/riparian
ponderosa pine forest
foothill woodland
chaparral
annual grassland
urban
irrigated pasture
blue oak/gray pine
blue oak woodland
landfill
orchard/vineyard
gravel mine

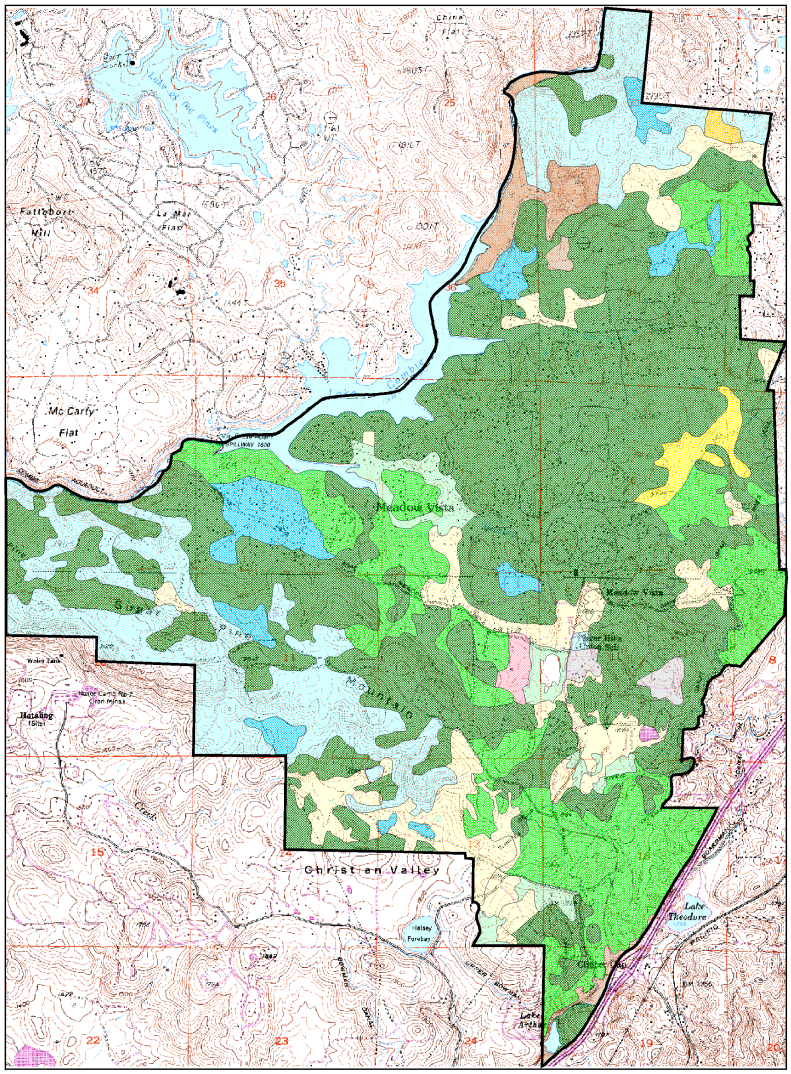
Vegetation and wildlife resources are grouped into common natural communities and wildlife habitats; artificial plant communities and wildlife habitats; and sensitive natural communities and wildlife habitats.

Common Natural Communities and Wildlife Habitats

Common natural communities are native or naturalized habitats not altered by farming or other land disturbance. These communities are common throughout northern California and not considered sensitive. Under the Placer County Tree Ordinance, all native trees are considered important resources and a tree permit and mitigation may be required for removal of native trees from these communities when building permits are required. From a biological and CEQA standpoint, however,

Meadow Vista Community
PTEIR

Figure 6-1: Plant Communities



native trees that comprise these communities are common in the Plan area and are discussed in this section rather than under sensitive natural communities.

Ponderosa Pine Forest. Ponderosa pine forest is the dominant plant community and contains ponderosa pine, gray pine, blue oak, and interior live oak. Incense cedar and blue oak occur occasionally in the forest canopy. The understory layer depends on canopy density and contains either shrub or herbaceous species. Many wildlife species are found in Ponderosa pine forests. Pine cone seeds provide food for the scrub jay, white-breasted nuthatch, and western gray squirrel. Primary cavity-nesting birds (birds that excavate their own nest cavities), such as the Nuttall's woodpecker and northern flicker, excavate holes in the soft wood of ponderosa pines and oaks for nesting. Secondary cavity-nesting species, such as the western bluebird, use abandoned cavities.

Foothill Woodland. Foothill woodland (shown as blue oak woodland and blue oak/gray pine in Figure 6-1) typically occurs on south-facing slopes near Ponderosa pine forest and brush communities. This woodland is dominated by black oak and interior live oak. The understory layer consists of scattered shrubs and grassland species. Wildlife habitat is similar to that of Ponderosa pine forest and brush habitats.

Chaparral. Chaparral communities are characterized by evergreen, hard-leaved shrubs adapted to dry, infertile soils. Typical dominants found in the mixed chaparral community include manzanita, buck brush, poison-oak, and coffee berry. Scattered gray pine, ponderosa pine, and black oak also occur. Species that inhabit brush include California quail, California thrasher, western fence lizard, mule deer, and coyote.

Grassland. Grassland is a herbaceous community characterized by annual and perennial grasses and forbs. Annual grasslands are dominated by annual grasses such as wild oats, ripgut brome, fescue, and a variety of herbs. Native perennial grasslands occur on open, north-facing slopes and under Ponderosa pine forest and oak communities. Grasslands provide nesting and foraging habitat for several wildlife species, including the gopher snake, red-tailed hawk, western meadowlark, California ground squirrel, and California vole.

Artificial Plant Communities and Wildlife Habitats

Artificial plant communities are human landscapes that provide some wildlife habitat value. Rural landscape and irrigated pasture are the primary artificial communities located in the Plan area.

Sensitive Natural Communities and Wildlife Habitats

Sensitive natural communities are regionally diverse, uncommon, or have been identified as a sensitive resource by local, state, or federal agencies. Elimination or degradation of a sensitive community would constitute a significant impact on plants and wildlife, as defined under CEQA. In the Plan area, riparian and stream habitat, valley oak woodland, and wetlands are considered sensitive natural communities.

Riparian and Stream Habitat. Riparian communities occur along perennial and seasonal streams, ponds, low-lying swales, and the shores of Lake Combie and Lake Arthur. Approximately 102 acres of the 6,979-acre Plan area supports riparian and stream habitats. The highest quality riparian habitat occurs along Wooley Creek and a tributary of Wooley Creek that runs parallel to Placer Hills Road.

Mixed riparian forest is the dominant riparian community and is characterized by intermixing layers of tree, shrub, and herbaceous plants. The forest canopy layer typically consists of Fremont's cottonwood, alder, willow, and valley oak. Under this tree layer, willow, blackberry, and poison-oak form a sparse to dense shrub layer along streams and ponds.

Portions of riparian and stream habitats may qualify as wetlands (defined below under "Wetlands") and therefore would be regulated by the U.S. Army Corps of Engineers under Section 404 of the Federal Clean Water Act (CWA). All stream habitats also are regulated under the California Fish and Game Code, Sections 1601-1603, which address streambed alteration agreements.

Valley Oak Woodland. Valley oak woodland occurs as narrow bands along drainages and as clusters in drainage floodplains. Examples of this sensitive community occur just north of Lake Arthur and at the southwest corner of the Volley Road/Combie Road intersection. Valley oak woodland is dominated by large valley oaks and sometimes contains interspersed interior live oak. The understory is dominated by annual grassland species or perennial pasture. Valley oak woodland is

considered a sensitive natural community by Placer County because it is locally and regionally uncommon. Valley oak woodland provides important habitat for wildlife because it occurs at lower elevations with mild temperatures. The habitat also produces acorns used by approximately 15% of all wildlife species in California, including the wild turkey, California quail, scrub jay, acorn woodpecker, and mule deer.

Wetlands. Wetlands include a variety of communities characterized by water-loving plants, hydric soils, and wetland hydrology. Wetlands that support these three characteristics qualify as "waters of the United States" and are regulated under Section 404 of the CWA. Wetland communities are typically associated with ponds, streams, and canals. Some wetland communities also occur in irrigated pasture. Wetland communities include marshes, wet meadows, and seasonal wetlands. These plant communities generally include various combinations of cattail, rush, pond weed, common streamside monkeyflower, fescue, and deer grass. Many wildlife species depend on wetland habitats for foraging, nesting, and cover.

Special-Status Plant and Wildlife Species

Special-status species are legally protected under state and federal Endangered Species Acts (ESAs) or other regulations, and species considered sufficiently rare to qualify for such listing (see Tables 6-1 and 6-2 for species lists).

Special-status plants include species in the following categories:

- plants listed or proposed for listing as threatened or endangered under the federal ESA (50 Code of Federal Regulations [CFR] 17.12 for listed plants and various notices in the Federal Register [FR] for proposed species);

- plants that are Category 1 or 2 candidates for possible future listing as threatened or endangered under the federal ESA (55 CFR 6184, February 21, 1990);

- plants that meet the definitions of rare or endangered species under CEQA (State CEQA Guidelines, Section 15380);

- plants listed or proposed for listing by the State of California as threatened or endangered under the California ESA (14 California Code of Regulations [CCR] 670.5); and

- plants listed under the California Native Plant Protection Act (Cal. Fish and Game Code, Sections 1900 et seq.).

Special-status animals are defined to include species in the following categories:

- animals listed or proposed for listing as threatened or endangered under the federal ESA (50 CFR 17.11 for listed animals and various notices in the Federal Register for proposed species);

- animals that are Category 1 or 2 candidates for possible future listing as threatened or endangered under the federal ESA (54 CFR 554, January 6, 1989);

- animals that meet the definitions of rare or endangered species under CEQA (State CEQA Guidelines, Section 15380);

- animals listed or proposed for listing by the State of California as threatened and endangered under the California ESA (14 CCR 670.5);

- animal species of special concern to DFG (Remsen 1978 for birds, Williams 1986 for mammals); and

- designated sensitive species of the Board of Forestry

- animal species fully protected in California (Cal. Fish and Game Code, Section 3511 [birds], 4700 [mammals], and 5050 [reptiles and amphibians]).

Special-Status Plants. Based on a review of existing environmental documents and DFG's Natural Diversity Data Base (NDDB), one special-status plant population (Sanborn's onion) has been reported in the Plan area. Sanborn's onion was located on the Winchester project site during a 1982 survey. This species is considered rare but not endangered by the California Native Plant Society (CNPS, List 4). No other special-status plants have been reported. However, because DFG is continually

adding new locations into the NDDB and because the Plan area has not been fully surveyed, other special-status plant populations probably occur.

According to CNPS's Inventory of Rare and Endangered Vascular Plants of California (Skinner and Pavlik 1994), 22 special-status plants have the potential to occur in the Plan area (Table 6-1).

Special-Status Wildlife. According to DFG's NDDB, no special-status wildlife species have been reported in the Plan area. However, special-status wildlife species surveys have not been conducted, and such species could be present. Surveys will be conducted as projects are planned and PTHPs prepared under this PTEIR.

Potential habitat exists for 20 special status species (Table 6-2). Suitable elderberry habitat for VELB was identified in the Winchester project area.

The California Department of Fish and Game and the US Fish and Wildlife Service identified special status species potentially occurring with in the project area of potentially affected by project implementation (Appendix C). Not all of these species are included in Table 6-2 due to: (1) lack of suitable habitat for those species within the project area, (2) known distribution of species does not include the project area, and/or (3) habitat is not potentially impacted by project implementation or impacts are not measurable.

Wildlife Species of Special Interest. Special interest species are those such as game animals with high value to the public but which are not threatened or endangered. Mule deer, California quail, and wild turkey are species of special interest known to occur in the Plan area. Bobcats and mountain lions are also present.

Fisheries Resources

Streams and reservoirs in the Plan area are identified as low-quality habitats for fish by the Meadow Vista Community Plan. Wooley Creek is a perennial stream that could support green sunfish or Sacramento sucker. The Plan area includes a portion of Lake Combie on the Bear River which could support trout, bass, Sacramento sucker, and green sunfish. Lake Arthur is a popular fishing spot, but no surveys have been conducted to determine which fish are present. Salmon and steelhead are not present within the community plan area in part due to lack of habitat and barriers to fish migration on the Bear River (Camp Far West and Combie reservoirs).

Table 6-1: Special Status Plant Species with Known or Potential Occurrence in the Meadow Vista Community Plan Area

Plant Species	Listing Status Fed/State/CNPS	Habitat Requirements	Distribution	Potential to Occur
Allium sanbornii var. *congdonii* Congdon's onion	--/--/4	Serpentine or volcanic outcrops, chaparral, woodland	Foothill counties	High
Allium sanbornii var. *sanbornii* Sanborn's onion	--/--/4	Serpentine outcrops, chaparral, woodland, low coniferous forest	Foothill counties	High; located in 1986 in Plan area
Azolla mexicana Mexican mosquito fern	--/--/4	Ponds, slow streams, wet ditches	Nevada County	Moderate
Balsamorhiza macrolepis var. *macrolipis* Big Scale balsam root	--/--/1b	Woodlands, foothill grassland, sometimes serpentine	Foothill counties	Moderate
Calystigia stebbinsii Stebbins morning glory	E/E/1b	Serpentine or gabbro chaparral opening, woodland	Placer and El Dorado Counties)	Low
Caradmine pachystigma var. *dissectifolia* Dissected leaf toothwart	--/--/3	Chaparral, serpentine outcrops	Butte, Mendocino, Placer, Sonoma Counties	Low
Chlorogalum grandiflorum Red Hills soaproot	C2/--/1b	Chaparral, woodland, serpentine, or gabbro	El Dorado, Placer, Tuolumne Counties	Low
Fremontodendron decumbens Pine Hill flannel bush	E/R/1b	Gabbro or serpentine chaparral, woodland	El Dorado and Nevada Counties	Moderate
Galium californicum ssp. *sierrae* El Dorado County galium	E/R/1b	Gabbroic substrate, chaparral, woodland, lower montane forest	El Dorado County	Low

Table 6-1: Special Status Plants, Continued

Plant Species	Listing Status Fed/State/CNPS	Habitat Requirements	Distribution	Potential to Occur
Glyceria grandis American Manna grass	--/--/2	Bogs, meadows, marshes, streambeds, and lake margins	Humbolt, Placer, Mariposa, Counties	Moderate
Lathyrus sulphureus var. *argillaceus* Dubious pea	--/--/3	Woodlands, lower and upper coniferous forest	Nevada, Placer, Shasta Counties	Low
Mondardella candicans Sierra monardella	--/--/4	Chaparral, woodland, low coniferous forest, sandy soils	Foothill counties	Low
Navarretia prolifera ssp. *lutea* Yellow bur navarretia	--/--/4	Chaparral, woodland, dry rocky flats near drainage channels	El Dorado and Placer Counties	Moderate
Perideridia bacigalupii Baciagalupi's yampah	--/--/4	Chaparral, lower coniferous forest, serpentine	Foothill counties	Low
Perideridia pringlei Adobe yampah	--/--/4	Grassy slopes, serpentine outcrops, chaparral, woodland	Foothill counties	Low
Plagiobothrys glypto carpus var. *modestus* Cedar Crest popcorn flower	C2/--/3	Woodlands	Near Grass Valley	Moderate
Phacelia stebbinsii Stebbin's phacelia	C2/--/1b	Woodland, lower coniferous forest, meadows	El Dorado and Placer Counties	Low
Rynchospora alba White beaked-rush	--/--/4	Bogs, marshes	Foothill counties	Low
Scutellaria galericulata Marsh skullcap	T/--/2	Wet sites, meadows, streambanks, coniferous forest	Foothill counties	Moderate

Table 6-1: Special Status Plants, Continued

Plant Species	Listing Status Fed/State/CNPS	Habitat Requirements	Distribution	Potential to Occur
Senecio layneae Layne's ragwort	C2/R/1b	Serpentine or gabbro chaparral, woodland	El Dorado and Tuolumne Counties	Low
Sidalcca stipularis Scadden Flat checkerbloom	C1/E/1b	Freshwater seep, wet meadow	Scadden Flat (Grass Valley	Low

Status Explanation: potential to occur based on presence of potential habitat

Federal (U.S. Fish and Wildlife Service):

- E Listed as endangered under the Federal Endangered Species Act.
- T Listed as threatened under the Federal Endangered Species Act.
- C1 Category 1 candidate for federal listing; includes species with enough information to list.
- C2 Category 2 candidate for federal listing; includes species for more information is needed.

State (California Department of Fish and Game):

- E Listed as endangered under the California Endangered Species Act.
- R Listed as rare under the California Endangered Species Act. Not longer used for new listings.

California Native Plant Society (CNPS)

- 1b rare, threatened, or endangered in California and elsewhere
- 2 rare, threatened, or endangered in California but more common elsewhere
- 3 plants about which more information is needed
- 4 plants of limited distribution

Table 6-2: Special Status Wildlife Species with Known or Potential Occurrence in the Meadow Vista Community Plan Area

Species	Listing Status Federal/State	Distribution	Preferred Habitats	Occurrence in the Plan Area	Reasons for Concern
Desmocerus californicus dimorphus Valley elderberry longhorn beetle	T/--	Streamside habitats below 2,000 feet throughout the Central Valley	Riparian and oak savanna habitats with elderberry bushes	Potential habitat exists along riparian corridors and oak savannas. Elderberries exist in the Winchester area	Loss and fragmentation of riparian habitats
Rana boylii Foothill yellow-legged frog	CS/SSC	Sierra Nevada foothills and Coast Range	Shallow streams with riffles	No records; potential habitat exists in the Plan area but is limited	Alteration of stream habitats by urbanization
Rana aurora draytoni California Red-legged Frog	T	Occurs from Shasta county south to the Mexican border. Significant number occur only in small coastal drainages between point Reyes and Santa Barbara county	Optimal habitat is dense shrubby riparian vegetation associated with deep, still or slow moving water	No records; historically present in Placer county. Likely extirpated although habitat is present	Habitat alteration, livestock grazing, and introduction of exotic aquatic predators.
Clemmys marmorata marmorata Northwestern pond turtle	C2/SSC	Foothills and lowlands throughout California	Ponds, marshes, and streams for foraging and cover; adjacent grasslands for nesting	No records; suitable habitat exists along streams and ponds throughout the Plan area	Loss or alteration of aquatic and wetland habitat or adjacent nesting habitat
Phrynosoma coronatum frontale California horned lizard	--/SSC	Foothills, Sacramento Valley south to Southern California	Grasslands, brush, woodlands with loose sand or gravel	No records; potential habitat exists throughout the Plan area	Habitat alteration and degradation

Table 6-2: Special Status Wildlife Species, continued

Species	Listing Status Federal/State	Distribution	Preferred Habitats	Occurrence in the Plan Area	Reasons for Concern
Myotis leibii Small-footed Myotis	SC	Common bat of arid uplands in a variety of habitats below 8900 ft. elevation	Found in relatively arid and open wooded and brushy uplands near water. Finds cover in caves, crevices, under bark and in buildings	No records; habitat likely exists in the plan area	Vulnerable to disturbance at maternity and hibernation sites.
Myotis evotis Long-eared Myotis	SC	Widespread in California but uncommon. Occurs below 9000 ft elevation	Found in nearly all brush, woodland, and forest habitats. Finds cover in snags, under bark, caves, and buildings	No records; Habitat likely exists in the plan area	Vulnerable to disturbance at maternity and hibernation sites.
Myotis thysanodes Fringed Myotis	SC	Widespread in California. Occurring in all but the Central Valley and Colorado and Mohave deserts	Optimal habitat is found within pinyon-juniper, valley foothill hardwood and hardwood-conifer. Roosts in caves, crevices, mines and buildings. Uses open habitat, lakes and ponds for foraging	No records; Habitat likely exists in the plan area	Vulnerable to disturbance at maternity and hibernation sites.

Table 6-2: Special Status Wildlife Species, continued

Species	Listing Status Federal/State	Distribution	Preferred Habitats	Occurrence in the Plan Area	Reasons for Concern
Myotis volans Long-legged Myotis	SC	Common in California from sea level to 11,400 ft. elevation. Absent only from Central Valley and non-mountainous areas of the Colorado and Mohave deserts	Found in woodland and forest habitat. Feeds in forest and woodland openings and finds cover in caves, snags, under bark, rock crevices. Nursery colonies under bark, hollow trees, crevices.	No records; Habitat likely exists in the plan area	Vulnerable to disturbance at maternity and hibernation sites.
Myotis yumanensis Yuma Myotis	SC	Common and widespread in California in a wide variety of habitats below 8000 ft. elevation	Optimal habitats are open forests and woodlands with a source of water over which to feed. Occupies caves, crevices, buildings, mines, bridges.	No records; Habitat likely exists in the plan area	Vulnerable to disturbance at maternity and hibernation sites.
Scaphiopus hammondi Western Spadefoot	SC	Found throughout the Central Valley and adjacent foothills to 4500 ft. elevation.	Occurs primarly in grasslands and occassionally in valley-foothill hardwood woodlands. Most of year spent in underground burrows. Breeds in shallow pools in grasslands.	No records; Habitat is not likely to occur within the plan area	Urban and agricultural development of habitat.

Table 6-2: Special Status Wildlife Species, continued

Species	Listing Status Federal/State	Distribution	Preferred Habitats	Occurrence in the Plan Area	Reasons for Concern
Accipiter cooperii Coopers hawk	--/SSC	Breeds throughout California	Woodlands, riparian areas, and coniferous forests	No records; suitable nesting habitat exists in woodlands and riparian areas	Loss of lowland riparian forests
Falco peregrinus Peregrine Falcon	E/E	Very uncommon breeding resident and uncommon winter migrant	Breeds predominately in woodland, forest and coastal habitats with suitable cliff or cliff-like habitat.	No records; Suitable breeding habitat may exist in the plan area.	DDE induced eggshell thinning, human disturbance at breeding sites.
Haliaeetus leucocephalus Bald Eagle	T/E	Permanent resident and uncommon winter migrant. Most breeding restricted to a few northern California counties.	Large bodies of water or rivers with adjacent perches. Nests mostly in stands with less than 40% canopy near a fish bearing permanent water source.	No records; habitat exists adjacent to large water bodies.	DDT induced eggshell thinning, vulnerable to disturbance at breeding sites.
Aquila chrysaetos Golden eagle	--/SSC	Throughout California	Grasslands and savannas for foraging; woodlands and cliffs for nesting	No records; because of human disturbance and limited occurrence of suitable nest sites; it is unlikely that eagles nest in the plan area	Vulnerable to human disturbance during nesting season

Table 6-2: Special Status Wildlife Species, continued

Species	Listing Status Federal/State	Distribution	Preferred Habitats	Occurrence in the Plan Area	Reasons for Concern
Agelaius tricolor Tricolored Blackbird	SC	Common locally throughout Central Valley and in coastal areas from Sonoma county south.	Breeds near fresh water, preferring emergent wetland composed of dense tules or cattails but also blackberry thickets, willow. Highly colonial. Forages in croplands, grassy fields, wet areas.	No records; Limited habitat likely exists within the plan area.	Urban and agricultural development of habitat. Loss of wetlands.
Dendroica petechia Yellow warbler	--/SSC	Streamside habitats throughout California	Riparian forests and scrub habitats	No records; habitat exists along riparian corridors	Loss of riparian habitats
Icteria virens Yellow-breasted chat	--/SSC	Throughout California but uncommon	Riparian forests with perennial water	No records; riparian areas marginal with no nesting expected	Loss of riparian habitats
Plecotus townsendii townsendii Townsend's western big-eared bat	C2/SSC	Widespread throughout California	Caves for roosting, usually near water	No records; suitable caves or breeding areas have not been identified	Vulnerable to disturbance at breeding sites
Bassariscus astutus Ringtail	--/FP	Widespread in foothill chaparral and valley riparian habitats of California	Riparian forests, brush, woodlands	No records; habitat marginal, not expected to occur	Loss of riparian forests

Table 6-2: Special Status Wildlife Species, continued

Status Explanation: potential to occur based on presence of potential habitat

Federal (U.S. Fish and Wildlife Service):

T	Listed as threatened under the Federal Endangered Species Act.
C2	Category 2 candidate for federal listing; includes species for more information is needed.
SC	Species of Concern

State (California Department of Fish and Game):

E	Listed as endangered under the California Endangered Species Act
FP	Fully protected under the California Endangered Species Act.
SSC	Species of special concern.

Regulations and Policies Influencing Biological Resources

Various state and local regulations and policies influence the protection of biological resources. Key issues summarized include preservation of oak woodland and protection of riparian communities and wetlands.

Oak Woodland Communities. Many oak trees within this community are 100-300 years old, representing California's natural heritage. The distribution of oak woodland in California, especially valley oak communities, has declined. This loss has led CDF, CNPS, and The Nature Conservancy (TNC) to identify the conservation and management of oak woodlands as major issues. Additionally, the California State Senate passed a resolution identifying the conservation of oak woodlands as a priority of state agencies when authorizing actions and projects (Senate Concurrent Resolution No. 17, January 18, 1989). Placer County acknowledges the value of native trees and the County Tree Preservation Ordinance prohibits the removal of landmark or preserved trees or groves of native trees, native tree corridors, and significant stands of native tree habitats for new development projects without County approval.

Riparian Communities. Riparian habitats have declined substantially compared to their historical distribution and condition. Substantial statewide decline of riparian communities in recent years has led state and federal agencies to adopt policies to arrest further loss. DFG has adopted a no-net-loss policy for riparian habitat value. The USFWS mitigation policy identifies California's riparian habitats in Resource Category 2, which recommends no net loss of existing habitat value (46 FR 15: 7644, January 23, 1981). In addition to state and federal policies, Placer County's Tree Preservation Ordinance prohibits removal of trees from riparian areas without prior identification of environmental impacts and mitigation measures. Some riparian areas may also qualify as wetlands under Section 404 of the CWA and would be regulated by the Army Corps of Engineers (ACOE).

Wetlands. Past land conversion to agricultural and urban uses has eliminated nearly 90% of California's wetlands. The ACOE, DFG, and Placer County have policies and laws that regulate impacts on wetlands.

The U.S. Army Corps of Engineers regulates discharge of dredged or fill material into waters of the United States, including wetlands, under Section 404 of the CWA. Projects that would result in the placement of dredged or fill material into waters of the United States require a Section 404 permit from the Corps.

DFG regulates activities that would interfere with the natural flow of or substantially alter the channel, bed, or bank of a lake, river, or stream. These activities are regulated under California Fish and Game Code Section 1601 for public agencies and Section 1603 for private individuals. Requirements to protect the integrity of biological resources and water quality are often conditions of streambed alteration agreements. Additionally, DFG has adopted a no-net-loss policy for wetlands (Executive Order 11190, California Fish and Game Commission 1987).

The Placer County Board of Supervisors recognizes wetlands as a significant natural resource that should be protected and has adopted a wetland mitigation banking resolution (#92-365, adopted December 8, 1992). Under this resolution, the County states that avoidance and protection of wetlands should be a first priority and, where avoidance is not possible, wetland disturbance should be mitigated with in-kind, on site resources. When on-site mitigation is not feasible, the County has determined that "mitigation shall occur at designated wetland mitigation bank sites once a wetland mitigation banking program has been established."

IMPACTS

Criteria for Determining Significance

Impacts on vegetation and wildlife resources will be significant if implementation of the Vegetation Management Project will result in any of the following:

- substantial local loss of common natural communities that provide habitat for wildlife;
- disruption of natural wildlife movement corridors;
- fragmentation or isolation of wildlife habitats, especially riparian, oak woodland, and wetland habitats;
- removal, filling, grading, or disturbance of wetlands and riparian and stream corridors;
- removal of:
  - landmark or preserved trees,

- more than 50% of the trees in a Tree Preservation Zone (County Code 36.320), or

- groves of native trees, native tree corridors, and significant stands of native tree habitats that may be protected under the Placer County Tree Preservation Ordinance; or

° direct mortality, substantial reduction in local population size, lowered reproductive success, or habitat fragmentation of:

- plants qualifying as rare and endangered under CEQA,

- plants and wildlife that are state- or federally listed threatened or endangered species,

- substantial portions of local populations of candidates for state or federal listing or CNPS List 1 or 3 species, or

- substantial portions of local populations of California wildlife species of special concern.

° substantial degradation of in-stream habitat for fisheries resources;

Relevant Community Plan Goals, Policies, and Implementation Programs

The Community Plan includes numerous key goals, policies, and implementation programs that call for the protection of biological resources.

Preserve and protect the valuable vegetation resources of Meadow Vista.

Continue to enforce the Placer County Tree Preservation Ordinance.

Create, preserve, and enhance open space lands to maintain the natural resources of Meadow Vista and to protect wildlife habitats.

Protect and enhance the natural qualities of Meadow Vista's streams, creeks, and groundwater by requiring sensitive habitat buffers.

Protect wetland communities and related riparian areas throughout Meadow

Vista as valuable resources.
Implement Placer County's wetland mitigation banking program.

Provide for the protection of rare, threatened, and endangered species and habitats that support those species.

Require field studies for special-status species.

Provide for the protection of rare, threatened, and endangered species and habitats that support those species.

Impact Analysis

Sensitive Natural Communities and Wildlife Habitats

Valley Oak Woodland. Implementation of the Vegetation Management Project as proposed would result in probable loss of individual oak trees. Individual oaks, however, could be removed to reduce fuel loading, or indirectly as affected by soil disturbance and soil compaction. The extent of oak loss cannot be assessed at this time; however, future development in the Plan area could contribute incrementally to statewide loss of Valley Oaks in California. Significant impacts to the wider Valley Oak Woodland community is not anticipated given the limited extent of tree removal. The intent of vegetation management is to reduce the fuel load in an area, not eliminate it. If oaks are an abundant tree in an area, they will continue to be following treatment.

The loss of individual oaks could result in localized displacement of wildlife species that depend on oaks for roosting, foraging, breeding, and movement corridors.

Riparian and Stream Habitats. Approximately 102 acres of the Plan area are included in the Riparian Drainage land use designation which includes major stream and riparian corridors. Implementation of the Vegetation Management Project as proposed could result in the degradation of riparian and stream habitats without restricted activity.

Wetlands. Because wetlands do not provide conditions for heavy fuel loading, no activity as a result of the project is expected and no impacts to wetlands would occur.

Common Natural Communities and Wildlife Habitats

Ponderosa Pine Forest and Foothill Woodland. Implementation of the project as proposed would result in loss of individual trees and portions of the understory and the displacement of wildlife commonly associated with these habitats. No adverse impacts to the larger plant communities would occur, however. From a botanical perspective, these communities and the native trees comprising the communities are common in the Community Plan area and surrounding region.

Ponderosa pine forest and foothill woodland and the dominant plant species that occur in these communities are not currently threatened in California. Placer County's Tree Preservation Ordinance regulates some activities that would occur in groves of native trees, native tree corridors, or significant stands of native tree habitats.

Chaparral. Implementation of the project would result in loss of limited chaparral acreage, a common habitat in the foothill region. This impact is considered less than significant because only minor amounts of chaparral would be removed and chaparral habitats are locally and regionally common. No mitigation is recommended.

The removal of brush and soil disturbance often leads to areas being invaded by invasive plant species such as poison oak, annual European grasses, and star thistle. The Placer County Agricultural Commissioner can give advice to individual landowners on how to treat undesirable plants. For many areas, maintenance mowing of any re-sprouting or invading vegetation will keep such new growth in check.

Special-Status Species

Special-Status Plant Species. Vegetation removal and other soil disturbance activities associated with the project could result in impacts on special-status plant species that occur in oak woodland and riparian habitats. The magnitude of this impact is impossible to assess because some of the Community Plan area has not been inventoried for special-status plants.

This impact is potentially significant because several of the special-status plants are restricted in distribution and are considered a significant natural resource in California.

Special-Status Wildlife Species. Vegetation removal activities could cause direct mortality, lower reproductive success, reduce population sizes, and fragment habitats of special-status wildlife species. The magnitude of these impacts are difficult to assess because the locations of special-status wildlife species, if any, are unknown at this time. Special-status wildlife species could occur in any habitat type in the Community Plan area but are most likely to occur in riparian habitats.

This impact is considered potentially significant because several of the special-status wildlife species are restricted in distribution and protected by state law.

Wildlife Species of Special Interest

Implementation of the project could result in the possible loss of habitat for species of special interest (i.e., mule deer, California quail, wild turkey, mountain lions, and bobcats) through fragmentation of habitats and disruption of movement corridors. This impact is considered potentially significant because these species are of special interest in the Community Plan area.

Fisheries Resources

Implementation of the project as proposed could result in incremental increases in urban runoff into watercourses and increases in sedimentation and turbidity in creeks and tributaries from increased soil erosion. Reduction of water quality could limit fish abundance and distribution by decreasing survival or growth at various life stages (egg, fry, etc.) or by avoidance of biologically important habitat. This impact is considered potentially significant.

California Wildlife Habitat Relationships (CWHR) Analysis

The California Wildlife Habitat Relationships System (CWHR) is an integrated information system on California's wildlife. The CWHR System contains life history, habitat relationships, and management information for 650 species of amphibians, reptiles, birds, and mammals considered to be regularly occurring in California. The two-condition query option of the database allows the user to define two vegetation conditions (i.e. before and after project) so that predicted species lists and habitat suitability values can be compared. A weighted habitat value comparison report was developed for analysis of impacts associated with the proposed PTEIR project. This report lists average habitat suitability values for each species and vegetation condition

(habitat) in the project area which is then multiplied by habitat weights (typically acres of habitat) provided by the user. The habitat units resulting are then summed across all vegetation conditions and the total number of habitat units are listed. The difference in habitat units between the pre-project and post-project vegetation conditions determines whether habitat increases, decreases, or exhibits no change with project implementation.

For the Meadow Vista analysis, vegetative types from the Meadow Vista Community Plan EIR were the starting point for developing suitable vegetation maps for the CWHR run. From this information base, vegetative types were refined to include size classes and canopy closures. Adjustments were based on field inspections and aerial photography. The maps were digitized to determine acreages.

The Meadow Vista vegetation management project proposes three management "zones" in which slightly different silvicultural practices would occur. Within the plan area, 49% of the acreage would be defensible space around structures (3,422 acres); 48% would be defensible landscape areas (3,318 acres); and 3% would be shaded fuelbreaks (239 acres). Within each area, silvicultural practices will only allow changes to canopy density, with no significant changes to the overall species type or size class. An assumption was that all existing vegetation types are distributed equally within each of the three management zones.

One modeling system limitation is that riparian areas in and immediately adjacent to watercourses are not represented within the vegetation type map or the associated acreages because they are too narrow to be accurately mapped. However, because the PTEIR requires buffers along watercourses and prohibits vegetation removal in or immediately adjacent to any watercourse, riparian areas will see no significant changes to species occurrence, size of vegetation, or density of the canopy within these buffers.

Based on CWHR's four density classes (canopy closure of 60-100%, 40-59%, 25-39%, and 10-24%), estimates were made on how current density would change if every parcel within the three management "zones" were to treat existing vegetation to the maximum level to achieve fire safe goals. To model this change, areas were assumed after treatment to move to the next lowest category of canopy coverage. For example, an area with 60-100% canopy closure would move to the next lowest category of 40-59% canopy closure. Areas currently with 10-24% canopy cover, however, would remain within this class.

Existing adjusted vegetation maps and associated acreage were used to calculate new acreages to reflect all landowners carrying out the maximum size projects. CWHR was then run comparing the current acreage habitat values and the values that would occur in the future if all landowners completed all projects. This

approach constitutes an analysis of the extreme case, which is unlikely to actually occur (not all landowners will do projects, nor will all projects occur at once).

The initial CWHR run included 191 individual species and their habitat requirements in the plan area including six species of amphibians, 117 bird species, 47 mammals, and 21 reptiles. The habitat values for 125 species increased while habitat for 33 species decreased. Habitat for the remaining 33 species showed no appreciable change.

A summary of the maximum impacts to species would be:

Amphibians:	habitat reduction for Ensatina (salamander) of 3% habitat increase for Western Spadefoot Toad of 4%
Birds:	habitat reduction for Hermit Thrush of 12% habitat increase for Song Sparrow of 420%
Mammals:	habitat reduction for Western Grey Squirrel of 13% habitat increase for Broad-footed Mole of 420%
Reptiles:	no species had habitat reduction predicted habitat increase for Coachwhip (snake) of 152%

Overall, this initial CWHR run indicates the potential for habitat reduction for 17% of the species that might occur within the Meadow Vista area and a corresponding increase in habitat for 65% of the potential species in the area.

A second set of CWHR runs for Meadow Vista was conducted by Ronald F. Schultze, State Biologist with the Natural Resources Conservation Service, with the intent to compare urbanizing impacts as allowed by the Meadow Vista Community Plan to proposed project impacts. It has been proposed that shaded fuelbreaks will be primarily installed in the ponderosa pine and montane hardwood habitats (including urbanized inclusions) in Meadow Vista. In recognition of this factor, the model run estimated that 20% of the area designated as ponderosa pine or montane hardwood-conifer include urbanized habitat. An additional run projected the difference between

vegetation management only in this area versus development to large-lot urban uses as provided for in the Meadow Vista Community Plan.

In converting the 20% urbanized habitat to fuelbreaks, the CWHR run predicts that the habitat value for 72 species will be negatively affected. The decrease in value, however, will be less than 5% for 60 of the 72 species. On the other hand, CWHR predicts that 102 species will have habitat values increased, including 41 species that will realize a 15% or greater increase in habitat. The printout for the CWHR model runs is included in Appendix D.

In converting the habitat to urban uses, 123 species had an increase in habitat values and only one species shows a decrease in habitat value. However, the conversion to urban uses results in the complete loss of habitat for 47 species. This evaluation shows that impacts to existing vegetation and habitat as discussed in this PTEIR will be much less than what will occur when development is built out in accordance with current land use designations.

It must be pointed out that the CWHR process looks only at broad trends in habitat reduction and does not preclude impacts to individual species of wildlife on a specific acreage. For this reason, Forest Practice Rules require a site specific biological assessment and the development of mitigation measures based on the findings of the assessment.

California Forest Practice Rules Requirements

All applicable Forest Practice Rules will apply to any PTHP undertaken pursuant to the PTEIR. The following Rules are particularly relevant for biological resources. As part of the project description, they will reduce many potential impacts to a less than significant level.

1. Timber operations shall be planned and conducted to maintain suitable habitat for wildlife species. These provisions are in addition to those directly or indirectly provided in other rules of the Board of Forestry. (939)

2. The PTHP shall contain a statement that no significant impacts would occur to any threatened or endangered plant or animal species in the area of the PTHP. (1092.9(g))

3. Existing Board of Forestry watercourse protection regulations provide for the identification of man-made watercourses (class IV watercourses), and requires protection of those resources. (936.4)

4. The protection and WLPZ widths for Class III and Class IV waters shall prevent the degradation of the downstream beneficial use of water and shall be determined on a site-specific basis. (936.4(c))

5. The timber operator shall not construct or reconstruct roads, construct or use tractor roads or landings in Class I, II, III or IV watercourses, in the WLPZ, marshes, wet meadows, and other wet areas except as follows:

    a. At prepared tractor road crossings as described in 934.8(b).
    b. Crossings of Class III watercourses which are dry at the time of timber operations.
    c. At existing road crossings
    d. At new tractor and road crossings approved as part of the Fish and Game Code process (F&GC 1600 et seq.) (936.3)

6. Watercourse protection rules provide for exclusion of heavy equipment from Watercourse and Lake Protection Zones (WLPZ). A distribution of conifers must be left within the zone. (936.4)

7. Where significant adverse impacts to non-listed species are identified, the RPF and Director shall incorporate feasible practices to reduce impacts as described in 14 CCR 898. (939.4)

MITIGATION

See also mitigation measures in Chapter 4 - Hydrology and Water Quality

1. Each proposed PTHP shall have proposed operating areas inspected by a qualified RPF or other qualified professional for the potential presence of any listed, threatened, or endangered species of plant or animal. No impacts to any listed species will be allowed.

2. Adjust the timing of vegetation management activities to avoid impacts on listed wildlife species, including actively nesting birds.

3. Avoid mechanical clearing in rare natural communities, including areas with special status plants.

4. Clean all equipment off-site to limit the spread of invasive plant species.

5. Encourage retention of Valley Oak areas within the community, and favor Valley Oak reproduction in those areas where it currently exists. Valley oak areas will be identified by individual landowners and retention will be encouraged.

6. Prohibit operations in any WLPZ except removal of dead/dying trees for public safety purposes and fire protection. All class I & II WLPZ watercourse corridors will otherwise remain intact.

7. Retain significant stand structure that will continue to be used for wildlife by restricting silvicultural harvest methods.

Level of Significance Following Recommended Mitigation

With implementation of recommended mitigation measures, potential impacts to biological resources will be reduced to a less than significant level.